Bellwork: 4/10/13

Solve the following equation. Don't forget your restrictions!

$$\frac{2\cdot 10}{x^2+3x} + \frac{2\cdot 2(x+3)}{x} - \frac{x\cdot x}{2x+6}$$

$$2x(x+3) \quad 2\cdot x(x+3) \quad 2(x+3)x$$

LCD: $2x(x+3)$

Res: $x=0$ $x+3=0$

$x \neq 0, -3$

$$20 + 4(x+3) = x^2$$

$$20 + 4x + 12 = x^2$$

$$4x + 32 = x^2$$

$$-4x \quad -32$$

$$x^2 - 4x - 32 = 0$$

$$(x+4)(x-8) = 0$$

$x+4=0$ $x-8=0$

$x = -4, 8$

Review for Quiz:

#1-4 → will not have $x =$ ___

#5-7 → equations $x \neq$ ___

$x =$ ___

Algebra 2
Review: Rational Expressions/Equations

Name: _____
Date: _____ Pd: _____

Perform the indicated operation. Show all work.

1) $\frac{x^2+3x-10}{x^2+8x+15} \bullet \frac{x^2+5x+6}{x^2+4x+4}$

_____

2) $\frac{x^2}{x^2-7x} \div \frac{1}{x^2-4x-21}$

_____

3) $\dfrac{5}{x^2-3x-28}+\dfrac{7}{2x-14}$

4) $\dfrac{x+1}{x^2+x-2}-\dfrac{1}{x^2+5x+6}$

5) $\frac{2}{x+5} = \frac{x}{x^2-25}$

$x \neq$ _____

$x =$ _____

6) $\frac{2}{x-5} = \frac{3}{x+4} + \frac{7}{x^2-x-20}$

$x \neq$ _____

$x =$ _____

7) $\frac{x}{x^2-4x}+\frac{2}{x}=\frac{2}{2x-8}$

$x \neq$ _____

$x =$ _____